






A SILICON-BASED COLOR LIQUID CRYSTAL DISPLAY MICRODEVICE

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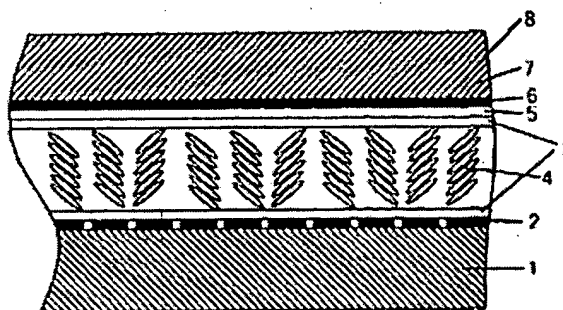
Cited documents:

 US5963289
 CN2510883Y
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Abstract of WO03096107

The invention discloses a micro-color liquid crystal device on silicon (LCOS). The device is constructed of silicon-based chip, a metal mirror array, a bottom orientation layer, liquid crystal layer, top orientation layer, transparent conductive layer, glass substrate sequentially disposed and integrally packaged. There is disposed a micro color filter array between top orientation layer and glass substrate. A gap between two orientation layer is 0.5μm~10μm. Pixels of the micro color filter array are corresponded to pixels of the metal mirror array. The metal mirror array is also acted as metal electrode being applied with a certain direct current or pulsed voltage. The device employs a square or honeycombed pixel unit structure. The invention achieves a single-chip color display design having advantages of simplified optical system, reduced volume and lowered cost, improving system reliability, removing image distortion and improving image quality.



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